CLAIMS

[c1] 1. A method of decimation of a digital image, the digital image represented by a plurality of pixels, the method comprising:

dividing the digital image into a plurality of blocks;

decimating, selectively, certain ones of the blocks based upon predetermined criteria.

[c2] 2. The method as set forth in Claim 1, wherein the predetermined criteria is a function of the chrominance information of the block.

[c3] 3. The method as set forth in Claim 1, wherein the predetermined criteria is a function of the contrast of the block.

[c4] 4. The method as set forth in Claim 1, wherein the predetermined criteria is a function of the level of detail within the block.

[c5] 5. The method as set forth in Claim 1, wherein the predetermined criteria is a function of the desired bit rate.

[c6] 6. The method as set forth in Claim 1, wherein dividing further comprises utilizing adaptive block size discrete cosine transforms (ABSDCT).

[c7] 7. The method as set forth in Claim 1, wherein dividing further comprises separating the digital image into Y, C_b and C_r components.

[c8] 8. The method as set forth in Claim 1, wherein each block may be represented as a plurality of elements within a plurality of columns (*m*) and rows (*n*), decimating further comprising:

filtering each element of each column of the block, where given an m^{th} column, weighting column *m-1* 25%, weighting column *m* 50%, and weighting column *m+1* filtering further comprises 25%.

[c9] 9. The method as set forth in Claim 8, further comprising:

filtering each element of each row of the block, where given an n^{th} column, filtering further comprises weighting row *n-1* 25%, weighting row *n* 50%, and weighting row *n+1* 25%.

[c10] 10. The method as set forth in Claim 1, further comprising converting the digital image from pixel representation to frequency representation.

[c11] 11. An apparatus for decimation of a digital image, the digital image represented by a plurality of pixels, the apparatus comprising:

means for dividing the digital image into a plurality of blocks;

means for selectively decimating certain ones of the blocks based upon predetermined criteria.

[c12] 12. The apparatus as set forth in Claim 11, wherein the predetermined criteria is a function of the chrominance information of the block.

[c13] 13. The apparatus as set forth in Claim 11, wherein the predetermined criteria is a function of the contrast of the block.

[c14] 14. The apparatus as set forth in Claim 11, wherein the predetermined criteria is a function of the level of detail within the block.

[c15] 15. The apparatus as set forth in Claim 11, wherein the predetermined criteria is a function of the desired bit rate.

[c16] 16. The apparatus as set forth in Claim 11, wherein means for dividing further comprises means for utilizing adaptive block size discrete cosine transform (ABSDCT) technique.

[c17] 17. The apparatus as set forth in Claim 11, wherein means for dividing further comprises means for separating the digital image into Y, C_b and C_r components.

[c18] 18. The apparatus as set forth in Claim 11, wherein each block may be represented as a plurality of elements within a plurality of columns (*m*) and rows (*n*), means for decimating further comprising:

means for filtering each element of each column of the block, where given an m^{th} column, means for filtering further comprises means for weighting column *m-1* 25%, column *m* 50%, and column *m+1* 25%.

[c19] 19. The apparatus as set forth in Claim 18, means for decimating further comprising:

means for filtering each element of each row of the block, where given an n^{th} column, means for filtering further comprises means for weighting row *n-1* 25%, row *n* 50%, and row *n+1* 25%.

[c20] 20. The apparatus as set forth in Claim 11, further comprising means for converting the digital image from pixel representation to frequency representation.

[c21] 21. An apparatus for decimation of a digital image, the digital image represented by a plurality of pixels, the method comprising:

a divider configured to divide the digital image into a plurality of blocks;

a decimator configured to selectively decimate certain ones of the blocks based upon predetermined criteria.

[c22] 22. The apparatus as set forth in Claim 21, wherein the predetermined criteria is a function of the chrominance information of the block.

[c23] 23. The apparatus as set forth in Claim 21, wherein the predetermined criteria is a function of the contrast of the block.

[c24] 24. The apparatus as set forth in Claim 21, wherein the predetermined criteria is a function of the level of detail within the block.

[c25] 25. The apparatus as set forth in Claim 21, wherein the predetermined criteria is a function of the desired bit rate.

[c26] 26. The apparatus as set forth in Claim 21, wherein the divider is further configured to utilize adaptive block size discrete cosine transforms (ABSDCT).

[c27] 27. The apparatus as set forth in Claim 21, wherein the divider further comprises a separator, the separator configured to separate the digital image into Y, C_b and C_r components.

[c28] 28. The apparatus as set forth in Claim 21, wherein each block may be represented as a plurality of elements within a plurality of columns (*m*) and rows (*n*), the decimator further comprising:

a filter configured to filter each element of each column of the block, where given an m^{th} column, the filter further comprises:

a weighter configured to weight column *m-1* 25%, column *m* 50%; and column *m+1* 25%.

[c29] 29. The apparatus as set forth in Claim 28, wherein the filter is further configured to filter each element of each row of the block, where given an n^{th} column, the weighter is further configured to weight row *n-1* 25%, row *n* 50%, and row *n+1* 25%.

[c30] 30. The apparatus as set forth in Claim 21, further comprising a converter configured to convert the digital image from pixel representation to frequency representation.

[c31] 31. A method of converting a 4:4:4 digital image into a 4:2:2 digital image, the digital image represented by a plurality of pixels, the method comprising:

dividing the digital image into a plurality of blocks, wherein each block may be represented as a plurality of columns (*m*), each column *m* comprising a plurality of elements;

selectively filtering each element of each column of the block.

[c32] 32. The method as set forth in Claim 31, where given an m^{th} column, filtering further comprising:

weighting column *m-1* 25%;

weighting column *m* 50%; and

weighting column *m+1* 25%.

[c33] 33. A method of converting a 4:4:4 digital image into a 4:2:2 digital image, the digital image represented by a plurality of pixels, the method comprising:

separating the digital image into Y, C_b and C_r components;

dividing the C_b and C_r components into a plurality of blocks utilizing adaptive block size discrete cosine transforms (ABSDCT), wherein each block may be represented as a plurality of columns (*m*), each column *m* comprising a plurality of elements; and

selectively filtering each element of each column of the block, where given an m^{th} column, the step of filtering further comprises:

weighting column *m-1* 25%;

weighting column *m* 50%; and

weighting column *m+1* 25%.